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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/880,103

06/14/2001

Itzik Ben-Bassat

05193.00009

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01/13/2005

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EXAMINER

HUYNH, SON P

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/880,103	BEN-BASSAT ET AL.	
	Examiner	Art Unit	
	Son P Huynh	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species of Figure 5, claims 12-41 that correspond thereto, in the reply filed on September 9, 2004 and a telephone call made to attorney Douglas W. Robinson on December 27, 2004, is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12-23, 25-30, 32-38, 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. (US 6,650,869) and in view of Jones et al. (US 6,490,256).

Regarding claim 12, Kelly teaches a satellite transceiver (109) for a personal computer (101), the personal computer (101) having a USB port (connected to USB connection 301-figure 3), the transceiver (109) comprising:

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a transmitter (109b) that resides in a box external to the computer (101) and that transmits radio frequency signals responsive to data received from the personal computer via the USB port (connected to USB connection 301) – figure 3 and col. 4, line 65-col. 5, line 14; col. 5, line 58-col. 6, line 10; col. 7, line 60-col. 8, line 67);

a receiver (109a) that resides in the external box and that receives radio frequency signals and converts the received signals to data for transfer to the personal computer via the USB port (connected to USB connection 301) – figure 3, col. 4, line 65-col. 5, line 14, col. 5, line 58-col. 6, line 10; col. 7, line 60-col. 8, line 67). Kelly further discloses transmitter and receiver may be standalone and distinct components (col. 8, lines 18-40) and transceiver 109 may be designed to be an add on capability to a standard receive only transceiver (col. 8, lines 65-67). However, Kelly does not specifically disclose transmitter (109b) and receiver 109a are cards.

Jones teaches transmitter card (210) and receiver card (200) – see figure 2. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kelly to use the teaching as taught by Jones in order to easily upgrade the system.

Regarding claim 13, Kelly in view of Jones teaches a transceiver as discussed in the rejection of claim 12. Kelly further discloses a USB connection 301 connected between transmitter and receiver of transceiver (109) to personal computer (101) – figure 3, col. 5, line 58-col. 6, line 7, col. 8, lines 3-15). Necessarily, the transmitter and the receiver

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include respective USB interfaces, the transceiver (109) further including a USB hub which couples the USB port to the USB interfaces via a USB bus (301).

Regarding claim 14, Kelly in view of Jones teaches a transceiver as discussed in the rejection of claim 12. Kelly further teaches an auxiliary bus directly connecting the transmitter and the receiver (figure 3 and col. 8, lines 13-15).

Regarding claim 15, Kelly further teaches a synchronizing signal (frame timing and transmit symbol clocks) is conveyed from the receiver to the transmitter via the auxiliary bus (col. 8, lines 10-47).

Regarding claim 16, Kelly additionally discloses the transmitter 109b and receiver 109a connected to each other (figure 3 and col. 8, lines 3-48). Inherently, the transmitter and receiver comprise connectors coupling the transmitter and receiver to the auxiliary bus (bus that connected between transmitter 109b and receiver 109a).

Regarding claim 17, Kelly further discloses the power supply (109c) reads on the internal DC source residing in the box for supplying power to the transmitter and receiver (figure 3).

Regarding claim 18, Kelly in view of Jones teaches a transceiver as discussed in the rejection of claim 12. Kelly further discloses the transmitter 109 may contain an RF

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transmitter; the transmitter modulates and transmits the in bound carrier (col. 8, lines 28-57). Thus, the transmitter includes a frequency synthesizer for generating the radio frequency signals.

Regarding claim 19, Kelly additionally discloses the transmitter 109b may be designed to operate with and to be controlled by the receiver 109 and the transmitter and receiver may be integrated (col. 8, lines 28-40). Thus, the frequency generated by the frequency synthesizer is set by a controller (e.g. receiver) on the transmitter.

Regarding claim 20, Kelly additionally discloses the receiver may have a USB interface, which is a standard interface to PC 101 to provide IRU control and data. The PC driver communicates with the receiver 109a for control over the USB channel. The receiver 109a contains an interface that may be used to transfer data to control the transmit unit and to provide the transmit data to control transmitter 109b (col. 8, lines 3-17, lines 28-47). Thus, the frequency generated by the frequency synthesizer is set by conveying instructions via the USB port.

Regarding claim 21, Kelly further discloses the transceiver (109) is coupled to an external antenna system (307), further comprising a connector, through which a DC source (109c) internal to the box, powers the antenna system (307- via cables 303) – figure 3 and col. 8, lines 49-57).

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Regarding claim 22, Kelly further discloses transmitter (109b) may contain an RF transmitter, the transmitter (109b) modulates and transmits signals to LNB 305, which is mounted on the antenna 111 (figure 3 and col. 8, lines 28-57). Necessarily, the transmitter includes radio frequency modulation circuitry that is coupled to convey the radio frequency signals to the antenna system via the connector.

Regarding claim 23, Kelly additionally discloses the PC provides control and data to the transceiver to control the transmitter to modulate and transmits the data (col. 8, lines 3-47). The transceiver 109 supports multiple rates, high speed, receive channel (col. 9, lines 5-20). Necessarily, the transmitter includes radio frequency modulation circuitry and the modulation circuitry modulates the transmitted signals according to a predetermined protocol according to a predefined protocol (i.e. TCP/IP) in accordance with a command conveyed to the transmitter via the USB port.

Regarding claim 25, Kelly additionally discloses the signals are transmitted to a satellite (107) – figure 1.

Regarding claim 26, the limitations of the method as claimed corresponds to the limitations of the transceiver as claimed in claims 12 and 13, and are analyzed as discussed with respect to the rejection of claims 12 and 13.

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Regarding claims 27, 30, 32-33 the limitations of the method as claimed correspond to the limitations of the transceiver as claimed in claims 14, 23, 25, 15 respectively, and are analyzed as discussed with respect to the rejection of claims 14, 23, 25 and 15.

Regarding claim 28, Kelly further discloses mounting a power connector (e.g. cable 303) on the box (mounting power connector to power supply 109c – figure 3); powering an antenna system external to the box (antenna system 307- figure 3) via the power connector (col. 8, lines 49-57).

Regarding claim 29, Kelly additionally teaches determining a frequency band of the signal using the data received by the transmitter (transmitter 109b modulates and transmits signal according to control and data received by transmitter – col. 5, lines 5-45; col. 6, lines 1-32; col. 8, lines 3-47).

Regarding claim 34, the limitations of the method as claimed correspond to the limitations of the transceiver as claimed in claim 12, wherein the claimed “industrial standard bus” correspond to the USB bus of claim 12, and are analyzed as discussed with respect to the rejection of claim 12.

Regarding claims 35-38,40-41, the limitations as claimed correspond to the limitations as claimed in claims 27-30,32-33, and are analyzed as discussed with respect to the rejection of claims 27-30,32-33.

4. Claims 24, 31, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. (US 6,650,869) in view of Jones et al. (US 6,490,256) as respectively applied to claim 12, 26, 34 above, and further in view of Bock et al. (US 5,953,418).

Regarding claim 24, Kelly in view of Jones teaches a transceiver as discussed in the rejection of claim 12. Kelly further teaches modulating and transmitting signals according to a predefined protocol in accordance with a command conveyed to the transmitter via the USB port as discussed in the rejection of claim 23. However, neither Kelly nor Jones specifically discloses the modulation circuitry includes an encoder, which encodes error correction into the transmitted signals.

Bock discloses signal processor 68 in transmitter card 62 comprises encoder (error correction 92) that encodes error correction into the transmitted signals (see figure 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kelly and Jones to use the teaching as taught by Bock in order to allow the receiver to correct transmission errors thereby improve signal quality.

Regarding claims 31, 39, the limitations of the method as claimed correspond to the limitations of transceiver as claimed in claim 24, and are analyzed as discussed with respect to the rejection of claim 24.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Naiff (US 5,982,363) teaches personal computer based set top converter for television services.

Dillon (US 5,699,384) teaches apparatus and method for satellite receiver computer adaptor card.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P Huynh whose telephone number is 703-305-1889. The examiner can normally be reached on 8:00-5:30.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher C Grant can be reached on 703-305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Son P. Huynh

December 27, 2004



HAITRAN
PRIMARY EXAMINER